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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,435	03/25/2004	Chien-Chou Hung	JCLA11487	9792
23900	7590	11/01/2005	EXAMINER MAI, ANH T	
J C PATENTS, INC. 4 VENTURE, SUITE 250 IRVINE, CA 92618			ART UNIT 2832	PAPER NUMBER

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/810,435	Applicant(s) HUNG ET AL.	
	Examiner Anh T. Mai	Art Unit 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102.

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States

2. Claims 1-4, 7-10, 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Park et al. [US 6395637].

Park discloses a an inductor formed on a substrate 10 and at least one dielectric layer 11 thereon; first inductor pattern 15 formed within dielectric layer 17; second inductor pattern 21 formed on the first inductor pattern and electrically connecting therewith; and a third inductor pattern 44 formed on the second inductor pattern and electrically connecting therewith; wherein the first inductor pattern, the second inductor pattern and the third inductor pattern have similar pattern [figure 8, col 7, lns 26-46].

With respect to claim 8, the first inductor pattern and a patterned first metal layer formed on the substrate are on the same layer and the first metal layer comprises the upmost metal layer of multi-layer interconnect structure formed on the substrate [figures 8-9].

With respect to claim 9, the second metal layer comprises metal plug [via hole] 42.

With respect to claim 10, the area between metal layer and plug [via hole] 18 and metal 15 is metal pad.

With respect to claims 1-4 and 13-15 the claims are method counterpart of structure claims 7-10. Also see Park, column 4, line 31 to col 6, line 65; and claims 1-2].

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. in view of Katayanagi [6486765].

Park discloses the claimed invention except for the three-dimensional inductor having an overlapping area where the first inductor pattern does not connect with third inductor pattern.

Katayanagi, however, discloses at least two spiral inductors selected from plurality of spiral inductor in the shape of rectangular such that the rectangles overlap each other along the longer sides thereof and non-overlapping area where the first inductor does not connect with second inductor [figure 3A].

Because Park and Katayanagi are both from the same field of endeavor, overlapping area of the inductor pattern as disclosed by Katayanagi would have been recognized as pertinent art of Park.

It would have been obvious, therefore, at the time the invention was made to a person having skill in the art to construct the overlapping area between the inductors, as disclosed by Katayanagi, to the three dimensional inductor, as disclosed by Park. Since the entire structure of the claimed invention is met by the combined teachings of the prior arts, by necessity the functional limitations of the claims will also inherently be met as recited in the claim.

With respect to claims 6 and 18, the claims are method counterpart of structure claim 12.

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5. Claims 5, 11, 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. in view of Sia et al. [6650220].

Park discloses the claimed invention except for the concentric circular spiral inductor. Sia et al., however discloses spiral stacked inductor 122 may also be circular spiral, which is either clockwise or counter clockwise [col 4, lns 55-58].

It would have been obvious, therefore, at the time the invention was made to a person having skill in the art to construct the circular spiral inductors, as disclosed by Sia, to the three dimensional inductor, as disclosed by Park to provide alternate configuration of the inductor.

With respect to claims 5 and 17, the claims are method counterpart of structure claim 11.

With respect to claim 16, Sia discloses different metals can be used for the inductors including aluminum [col 5, lines 45-50]. It would have been obvious, therefore, at the time the invention was made to a person having skill in the art to use aluminum, as disclosed by Sia, to the three dimensional inductor, as disclosed by Park to provide alternative material for the inductor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh T. Mai whose telephone number is 571-272-1995. The examiner can normally be reached on 5/4/9 Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'Anh Mai', with a long horizontal stroke extending to the right.

**ANH MAI
PRIMARY EXAMINER**